Jackson County Sentinel

VOL. 18. No. [illegible] GAINESBORO, TENN., FRIDAY, SEPT. 29, 1916 ONE DOLLAR A YEAR

COUNTY SCHOOL FIELD DAY, SATURDAY, OCT. 31

PROGRAM

LITERARY CONTESTS.

I. SPELLING—Division 1.

Hunt's Progressive Speller. Pages 33 to 65 inclusive, and in case the contest is not concluded will be continued to page 80. This contest includes the first five grades, and allows only one contestant from each school.

II. SPELLING—Division 2.

Hunt's Progressive Speller. Pages 81 to 139 inclusive. This contest includes all grades above the fifth and allows only one contestant from each school.

III. DECLAMATION—Division 1.

Best declamation not to exceed five minutes. For boys only.

IV. DECLAMATORY—Division 2.

Best delivered recitation, one contestant from each civil district.

V. ARITHMETIC—Division 1.

Rapid addition.

Best note book showing one week's work in Common Fractions.

VI. ARITHMETIC—Division 2.

This contest will consist of four problems, one each in Addition, Multiplication, Subtraction and Division. Contest will be decided upon accuracy and rapidity.

VII. LANGUAGE—Division 1.

Best composition of not over 200 words, any subject.

VIII. LANGUAGE—Division 2.

Best composition not exceeding 300 words, any subject. Best written parsing, any sentence not exceeding fifteen words.

IX. GEOGRAPHY—Division 1.

Best map of Tennessee and Jackson county.

X. GEOGRAPHY—Division 2.

Best map of the United States.

XI. U. S. HISTORY—Division 2.

Best biography of Washington, Lee or Grant.

XII. TENNESSEE HISTORY—Division 2.

Best outline of Watauga Association.

XIII. PHYSIOLOGY—Division 2.

Best essay, subject "Effect of alcohol on the human system."

ATHLETIC EVENTS.

RACES FOR BOYS.

1st.	100 yard dash	age 17 to 21 inclusive
2nd.	100 yard dash	age 14 to 16 inclusive
3rd.	50 yard dash	age 10 to 13 inclusive
4th.	Shoe race	12 years and under
5th.	Sack race.	
6th.	Tug of War. Five representatives from each school.	

RACES FOR GIRLS.

1st.	50 yard dash	age 18 to 21 inclusive
2nd.	50 yard dash	age 15 to 17 inclusive
3rd.	50 yard dash	age 10 to 14 inclusive
4th.	Potato or relay race.	

JUMPING CONTEST FOR BOYS.

1st.	Running high jump	age 16 to 21 inclusive
2nd.	Running high jump	age 10 to 16 inclusive
3rd.	Running broad jump	age 16 to 21 inclusive
4th.	Running broad jump	age 10 to 15 inclusive

RULES GOVERNING CONTESTS.

All literary contests will be divided into two divisions, the first division including the first five grades. The second division including all other grades.

All contestants must be bona fide pupils of the school they represent, and must have been in attendance at least twenty days.

All entrances must be in the hands of the secretary or W. L. Dixon by October 15.

All teachers who attend these exercises, and all schools be given a holiday on Friday, Oct. 27. It is desired wherever possible, the schools come in a body, and a banner bearing the name of the school be carried by each school. It is further desired, if possible, that the pupils of each school assemble on the public square in Gainesboro promptly at 9:00 A. M., and march to the school building where the exercises will be held.

The State Department of Education has been requested to send a representative. Other educators will be present.

It is urged that every body in Jackson county come and enjoy the day thereby helping the schools to become more efficient. Catch the spirit of childhood and youth again.

W. L. DIXON,
County Superintendent.

Uses and Abuses of Fertilizers

By Prof. R. J. H. De Loach, Director of Georgia Experiment Station.

6. FERTILIZERS AND THE HOME GARDEN.

The Last of a Series of Six Articles.

A farmer that we used to know quite well always put on his garden plot a sack of guano and three or four loads of stable and other kinds of barnyard manure. His garden covered about one-fifth of an acre, and was good land to begin with. In fact, he had selected a good, rich spot of ground for his garden. The fertilizer he applied amounted to a thousand pounds per acre, and the barnyard manure to about seven or eight tons. Of course, he grew a good garden, as most people do, and yet he often wondered why his garden was so much better than other parts of his farm. He was a good farmer and made plenty of everything, and to spare. He knew that he made liberal applications of fertilizers and manures to his garden, but was never quite willing to acknowledge that these made all the difference in the yields.

Our gardens are usually the richest spots on the farm, and are so only because we make them so by fertilization and cultivation. Every acre in the average farm could be made just as rich if we tried to make it so. We do not consider sufficiently the factors which make fertile land. We do not strive to do intensive farming, but rather make it as extensive as our acres will allow. When we wish to make an additional bale of cotton, or bushel of corn, we take in more land instead of enriching what is already under cultivation.

Dr. L. H. Bailey has given in his book, "The Principles of Vegetable Gardening," some valuable suggestions on the use of commercial fertilizers. "The kind and amount of fertilizers," he says, "are to be determined by several circumstances: (1) The earliness or quickness with which the crop is to be obtained; (2) the intensity of the operations to which the man is committed; (3) the character of the land as regards tilth and texture; (4) the character of the land as regards richness in plant food; (5) the kind or species of crops to be raised." Whatever the condition of the land or the nature of the crop, it must be fertilized if the gardener meets with success. Competition in the truck-growing business can be met in no other way than by liberally fertilizing the ground on which the crops grow. Dr. Bailey has wisely said that fertilizers must be applied in excess of the actual needs of the plants. It is impossible to distribute a very small quantity of fertilizers over a large area.

Vegetables are such rapid growing plants that one need not fear that much of the fertilizer will leach out through the soil on account of rain. If it is applied close to or in the drill row, all of it should be saved. The plants will absorb it before it gets away. The formula generally recommended consists of a complete fertilizer, though the acid phosphate and nitrogen should come from different sources, even in the same fertilizer applied at any given time. The mixture for gardens should be composed of as many kinds of ingredients as possible, carrying the three fundamental elements of plant food—potash, nitrogen and phosphoric acid.

Voorhees recommends heavy applications of such mixtures to the commercial gardens and to truck patches. He says 1,000 to 5,000 pounds per acre of such mixture should be applied to asparagus, and as much to beets and turnips; less than that to peas and beans. With any amount an after application has been found profitable. This is sometimes called the second application, which is not generally a complete fertilizer, but is composed of nitrogen, or one of the other elements alone. The second application of fertilizers may be composed of ammonia and acid, or other formula to suit the immediate crop.

Garden vegetables need large applications of fertilizer because any check in their growth produces inferiority in quality. It is said by Dr. Bailey that any delay in the growth of lettuce or radishes will generally cause a pungent flavor or sharp taste that is undesirable. It cut down the market value. The way to remove any cause for this is to fertilize well and properly and then cultivate. The turnip is made very inferior when there is a check in growth. The vegetables that are thus stunted seem to revert to the original type from which they were derived, especially with regard to taste, and hence should be carefully looked after in regard to fertilization and cultivation. Fertilizers should be applied to the vegetable garden as early after the spring breaking as possible, as the soil ought to be saturated with rich plant food before the plants begin to grow very much. Then they will grow much more rapidly and make far better vegetables. The second application should be made about the time the young plants are half grown. This is as definite as a statement regarding this practice can be made. For all prize crops, a third and fourth application is made, and with telling effects. No one can deny that the vegetable garden is the one place in which large dividends can be made from the use of commercial fertilizers.

FEEDING THE DAIRY COW

Cow Must Have Protein in Order To Make Proper Milk and Muscle.

(R. M. Murphy, Division of Extension, University of Tennessee.)

The cow must have protein to make milk and muscle, carbohydrates and fats to make fat (body fat and butter fat).

(a) Protein can be supplied by the following feeds: Cottonseed meal, wheat bran, alfalfa, red clover, Japan clover, cowpeas, soy beans.

(b) Carbohydrates and fats can be supplied in: Corn, corn and corn-cob meal, barley, oats, grass hays, corn stover, silage, cottonseed hulls, straws (oat, wheat and barley), sorghum.

The cow giving milk should have about one pound of protein to five pounds of carbohydrates and fats. (Fats are worth two and one-fourth times as much as carbohydrates in a ration.)

A one-thousand-pound cow giving two and one-half gallons of milk per day requires about two and one-half pounds protein, fourteen pounds carbohydrates, and one-half pound of fat. The quantity of feed given should be in direct proportion to the amount of milk the cow is giving.

General Rules for Feeding.

Feed all the roughage (hays, silage, etc.) the cow will eat up clean.

Feed one pound of grain for every three to three and one-half pounds of milk the cow is giving. (An accurate record of the daily milk yield should be kept and the amount of grain fed increased or decreased as the milk-flow increases or decreases.

A mixture of grains and roughages gives better results than any grain or roughages fed singly.

If you have a supply of food, like corn, which is rich in carbohydrates and fats, buy protein in its cheapest form, namely, cottonseed meal. (A grain mixture of three parts of corn and cob meal to two parts of cottonseed meal is the cheapest satisfactory grain when corn is not over $1 per bushel, and the roughage consists of silage or grass hays. If the roughage consists of alfalfas, clovers, soy bean, or cowpea hay, the grain mixture may well be five parts corn and cob meal to one part of cottonseed meal.)

Most satisfactory results are possible when the cow has a supply of green food the year round. Every man who feeds ten or more cows can afford to build a silo. Silage is a thoroughly satisfactory substitute for grass, and the milk cow should be given all she will eat when grass is not available.

Cows will produce milk most economically without grain when grass is abundant. The milk flow can often be profitably increased by feeding grain when the cows are on pasture.

Cottonseed meal should always be fed because of its low cost, considering its food value and fertility value.

When alfalfa, clovers, cowpeas and soy beans cost more than $1 per hundred, protein can be supplied cheaper in cottonseed meal, using cheaper forms of roughage, such as silage, corn stover, oat straw or sorghum, to supply carbohydrates and fats and the bulk necessary to satisfy the cow's appetite.

The Presbyterian church at Elat, Africa, has a membership of 2,297 and a waiting list over six times its membership. No one can be admitted as a member without a probationary period of at least two years.

The home department of the Japanese government has been gathering statistics of Christians for many years, and the last report of the number of believers of the different churches is as follows: Roman Catholics, 63,087; Greek Catholic, 14,749; Nippon Kirisuto, 18,451; Kumiai, 16,115; Sei Ko Kwai, 15,090; Methodists, 11,763; Baptists, 4,191; other smaller denominations, 12,246; total, 155,816.

DEHORN NOW.

(By C. D. Lowe, Division of Extension, University of Tennessee.)

Dehorn your stock cattle now if you did not use caustic when calves. Use one of the good kinds of clippers or a sharp fine saw and cut smooth with head; confine animal securely in stanchion or chute.